# Fall 2011 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including USACE Erosion Survey

#### Sacramento River Basin

RD1001	Overall LMA	Total LMA				
Reclamation District No. 1001 Nicolaus	Rating	Miles				
	M	44.03				
					Encroad	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	PO Miles	CO Miles
Earthen Levee		T	1 . = .			
Vegetation	4.71		4.71	10.70%		
Encroachments	0.14	0.20	0.94	2.13%	2.50	0.05
Animal Control	0.01		0.01	0.02%		
Slope Stability	0.06		0.06	0.14%		
Supplemental	4 74		4 74	0.000/		
USACE Erosion Survey	1.71		1.71	3.88%		
LMA Totals:	6.63	0.20	7.43	16.87%	2.50	0.05
Unit No. 01 Yankee Slough RB	Overall Unit Rating	Total Unit Miles				
RD1001	Α	4.17				
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	Encroad PO Miles	
Earthen Levee		T		0.100/	0.00	
Encroachments	0.02		0.02	0.48%	0.06	0.01
Unit Totals:	0.02	0.00	0.02	0.48%	0.06	0.01
Unit No. 02 Yankee Slough LB	Overall Unit Rating	Total Unit Miles				
RD1001	A	3.66				
					Encroad	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	PO Miles	CO Miles
Earthen Levee	0.04		T			
Encroachments	0.04		0.04	4 000/	0.00	0.00
Cumplemental	0.01		0.04	1.09%	0.03	0.02
Supplemental USACE Frosion Survey					0.03	0.02
USACE Erosion Survey	0.01	0.00	0.01	0.27%		
		0.00			0.03	0.02
USACE Erosion Survey	0.01	0.00  Total Unit Miles	0.01	0.27%		
USACE Erosion Survey Unit Totals:	0.01 0.05 Overall Unit	Total Unit	0.01	0.27%		
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB	0.01 0.05 Overall Unit Rating	Total Unit Miles	0.01	0.27%		0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee	0.01 0.05 Overall Unit Rating M	Total Unit Miles 12.60	0.01 0.05 M + 4U Miles	0.27% 1.37% Threshold %	0.03	0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee  Vegetation	0.01 0.05  Overall Unit Rating M  M Miles	Total Unit Miles 12.60 U Miles	0.01 0.05 M + 4U Miles	0.27% 1.37% Threshold % 0.48%	0.03  Encroac PO Miles	0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee	0.01 0.05 Overall Unit Rating M	Total Unit Miles 12.60	0.01 0.05 M + 4U Miles	0.27% 1.37% Threshold % 0.48% 6.98%	0.03	0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee  Vegetation Encroachments Slope Stability	0.01 0.05  Overall Unit Rating M  M Miles	Total Unit Miles 12.60 U Miles	0.01 0.05 M + 4U Miles	0.27% 1.37% Threshold % 0.48%	0.03  Encroac PO Miles	0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee  Vegetation Encroachments Slope Stability  Supplemental	0.01 0.05  Overall Unit Rating  M  M Miles  0.06 0.08 0.03	Total Unit Miles 12.60 U Miles	0.01 0.05 M + 4U Miles 0.06 0.88 0.03	0.27% 1.37% Threshold % 0.48% 6.98% 0.24%	0.03  Encroac PO Miles	0.02
USACE Erosion Survey Unit Totals:  Unit No. 03 Bear River LB  RD1001  Rated Item  Earthen Levee  Vegetation Encroachments Slope Stability	0.01 0.05  Overall Unit Rating M M Miles  0.06 0.08	Total Unit Miles 12.60 U Miles	0.01 0.05 M + 4U Miles 0.06 0.88	0.27% 1.37% Threshold % 0.48% 6.98%	0.03  Encroac PO Miles	0.02

# Fall 2011 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including USACE Erosion Survey

### Sacramento River Basin (cont.)

Unit No. 04 Feather River LB	Overall Unit Rating	Total Unit Miles				
RD1001	U	13.36				
					Encroad	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	PO Miles	CO Miles
Earthen Levee		T	T		1	1
Vegetation	4.63		4.63	34.66%		
Encroachments					0.04	0.01
Animal Control	0.01		0.01	0.08%		
Supplemental						
USACE Erosion Survey	1.35		1.35	10.11%		
Unit Totals:	5.99	0.00	5.99	44.84%	0.04	0.01
Unit No. 05 Natomas Cross Canal RB	Overall Unit Rating	Total Unit Miles				
RD1001	A	5.44				
					Encroad	
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	PO Miles	CO Miles
Earthen Levee		1	1			
Encroachments					1.70	0.01
Litoroaciiiieilis					1.70	0.01
Supplemental					1.70	0.01
	0.01		0.01	0.18%	1.70	0.01
Supplemental	0.01 0.01	0.00	0.01 0.01	0.18% 0.18%	1.70	0.01
Supplemental USACE Erosion Survey		0.00  Total Unit Miles				
Supplemental  USACE Erosion Survey  Unit Totals:	0.01 Overall Unit	Total Unit				
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB	0.01 Overall Unit Rating	Total Unit Miles			1.70	
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB	0.01 Overall Unit Rating	Total Unit Miles			1.70	0.01
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB  RD1001	0.01  Overall Unit Rating  A	Total Unit Miles 4.80	0.01	0.18% Threshold %	1.70	0.01
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB  RD1001  Rated Item	0.01  Overall Unit Rating  A	Total Unit Miles 4.80	0.01	0.18%	1.70	0.01
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB  RD1001  Rated Item  Earthen Levee	0.01  Overall Unit Rating  A  M Miles	Total Unit Miles 4.80	0.01 M + 4U Miles	0.18% Threshold %	1.70	0.01
USACE Erosion Survey Unit Totals:  Unit No. 06 East Side Canal RB  RD1001  Rated Item  Earthen Levee  Vegetation	0.01  Overall Unit Rating  A  M Miles	Total Unit Miles 4.80	0.01 M + 4U Miles	0.18% Threshold %	1.70  Encroac PO Miles	0.01

# **LMA District Cover Sheet**

### Fall 2011 Levee Inspection Results

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)							
* Overall LMA Rating (Fall Only)			M								
	** Non-receipt of Su	ımmer or Winter Inspe	ection Reports may effec	ct overall annual rating							
* SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.  FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified											
within the attached u	nit inspection reports.										
comments											

### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

	Water	wav		Bank	Unit Miles
	Unit No. 01 Ya	•		Right	4.17
	Spring (March - May)	Summer (June - August)	(September - November) Fall		Winter ber - February)
Unit Maintenance Rating (Fall Only)			A		
Date of Inspection	4/13/2011 - 4/13/2011		11/18/2011 - 11/18/2011		
DWR Inspector	Clay Thomas		Clay Thomas		
Accompanied By	Diane Fales		Diane Fales		
project components conditions other that deficiencies identified.  During the current was project.	vinter (or summer) inspection p identified in the attached Leve n the results of our normal mai ed in the enclosed report. vinter (or summer) inspection p identified in the attached Leve	ee Inspection Report by intenance and the correction of the correc	Mile. We have found no chan ections we have made to main et inspected the levee and asso	ges in flo tenance ociated fl	od project
maintenance and the following changes in (In the comment see	e corrections we have made to n flood project conditions. ction below or on additional sho n (Land Side, Water Side, or C	o maintenance deficien eet(s), identify change	cies identified in the report, we of condition by: Start to End Le	have fou	or GPS
Comments					
information must also be s	3	eet should be signed ar	nd dated by the LMA Represer ch 31 (Winter Inspection). Plean respection Reports e, Suite 200	ntative an	d returned to
x					
Signature of LMA Repres	sentative		Date		

### Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yankee Slough	Right	4.17	11/18/2011 11/18/2011	Clay Thomas

LMR	Levee Mile		Catagoni	Itom	Location	Rating	Action/Comment	GPS Latitud	de/Longitude	Issue No.
No.	Start	End	Category	Item	tion	ing	Action/Comment	Start	End	Photo
1	0.47	4.15	Earthen Levee	Vegetation	LS	Α	Remove the wild growth other than native grasses from the levee slopes.	38.975475 ° -121.476097 °	38.970638 ° -121.534510 °	1 Y
2	0.47	4.15	Earthen Levee	Vegetation	WS	Α	Remove the wild growth other than native grasses from the levee slopes.	38.975474 ° -121.476096 °	38.970638 ° -121.534514 °	2 Y
3	0.96	0.96	Earthen Levee	Encroachments	LS	СО	Landscaping	38.974569 ° -121.484815 °	38.974569 ° -121.484815 °	15
4	1.31	1.31	Earthen Levee	Encroachments	LS	М	Prunings	38.972689 ° -121.490599 °	38.972689 ° -121.490599 °	8
5	2.99	2.99	Earthen Levee	Encroachments	LS	М	Debris	38.966849 ° -121.518785 °	38.966849 ° -121.518785 °	7
6	3.16	3.22	Earthen Levee	Encroachments	LS	РО	Landscaping	38.965663 ° -121.521023 °	38.965705 ° -121.522098 °	5
7	3.35	3.35	Earthen Levee	Encroachments	LS	С	Debris	38.965585 ° -121.524458 °	38.965585 ° -121.524458 °	3
8	3.80	3.80	Earthen Levee	Vegetation	LS	W	Elderberries are blocking visibility and flood fight capability.	38.966372 ° -121.532323 °	38.966372 ° -121.532323 °	6

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yankee Slough	Right	4.17	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	1
Start Levee Mile	0.47
End Levee Mile	4.15
Location	Land Side
Category	Earthen Levee
Item	Vegetation
This is to a facility of the state of	-1-1-1

This photo shows the landside vegetation at levee mile 2.75.

cathom\_f\_20111201\_008.jpg

Levee Mile Report Line	2
Start Levee Mile	0.47
End Levee Mile	4.15
Location	Water Side
Category	Earthen Levee
Item	Vegetation

This photo shows the waterside vegetation at levee mile 2.75.

cathom\_f\_20111201\_007.jpg





### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

# **Reclamation District No. 1001 Nicolaus**

	Waten	way		Bank	Unit Miles
	Left	3.66			
	Spring (March - May)	Summer (June - August)	(September - November) Fall		Winter ber - February)
Unit Maintenance Rating (Fall Only)			Α		
Date of Inspection	4/13/2011 - 4/13/2011		11/18/2011 - 11/18/2011		
DWR Inspector	Clay Thomas		Clay Thomas		
Accompanied By	Diane Fales RD 1001		Diane Fales RD 1001		
Check one:	vinter (or summer) inspection p	period, my staff or I have	e inspected the levee and asso	ociated fl	ood
project components conditions other that	identified in the attached Leve n the results of our normal mai and in the enclosed report.	e Inspection Report by	Mile. We have found no change	ges in flo	
project components maintenance and th	vinter (or summer) inspection p identified in the attached Leve e corrections we have made to a flood project conditions.	e Inspection Report by	Mile. In addition to the results	of our no	ormal
	ction below or on additional she n (Land Side, Water Side, or C				
Comments					
information must also be s	3	eet should be signed ar	nd dated by the LMA Represent ch 31 (Winter Inspection). Pleast spection Reports country, Suite 200	itative an	d returned to

Date

Wednesday, December 21, 2011 15:00

Signature of LMA Representative

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yankee Slough	Left	3.66	11/18/2011 11/18/2011	Clay Thomas

LMR	Levee	Mile	Category	Item	Location	Rating	Action/Comment	GPS Latitude	/Longitude	Issue No.
No.	Start	End	catogo. y	NO.	ō	DG	A Collotti Collimioni	Start	End	Photo
1	0.04	3.63	Earthen Levee	Vegetation	ws	Α	Remove the wild growth other than native grasses from the levee slopes.	38.971225 ° -121.474036 ° -1	38.965404 ° 21.532794 °	2 Y
2	0.04	3.63	Earthen Levee	Vegetation	LS	Α	Remove the wild growth other than native grasses from the levee slopes.	38.971224 ° -121.474036 ° -1	38.965404 ° 21.532794 °	1 Y
3	0.52	0.52	Earthen Levee	Encroachments	LS	М	Debris	38.974325 ° -121.480495 ° -1	38.974325 ° 21.480495 °	5
4	0.58	0.58	Earthen Levee	Encroachments	LS	М	Prunings	38.974323 ° -121.481754 ° -1	38.974323 ° 21.481754 °	15
5	0.67	0.67	Earthen Levee	Encroachments	LS	PO	Landscaping	38.974198 ° -121.483150 ° -1	38.974198 ° 21.483150 °	16
6	0.81	0.81	Earthen Levee	Encroachments	LS	М	Debris	38.973605 ° -121.485728 ° -1	38.973605 ° 21.485728 °	7
7	0.82	0.82	Earthen Levee	Encroachments	ws	С	Debris	38.973525 ° -121.485704 ° -1	38.973525 ° 21.485704 °	6
8	0.96	0.96	Earthen Levee	Encroachments	ws	С	Debris	38.973118 ° -121.488358 ° -1	38.973118 ° 21.488358 °	8
9	1.00	1.00	Earthen Levee	Encroachments	ws	С	Debris	38.972905 ° -121.488953 ° -1	38.972905 ° 21.488953 °	9
10	1.25	1.25	Earthen Levee	Encroachments	LS	М	Prunings	38.970654 ° -121.492448 ° -1	38.970654 ° 21.492448 °	4
11	1.28	1.29	Supplemental	USACE Erosion Survey	WS	М	Inspector Comments: 2011: New erosion site. Steep eroding slope. Fairly old scarp with vegetation growth. [2011 Site ID: YAS_1-7_L]	38.969740 ° -121.494327 ° -1	38.969640 ° 21.494829 °	13 Y
12	1.77	1.77	Earthen Levee	Encroachments	LS	СО	Landscaping	38.970353 ° -121.501935 ° -1	00.0.000	10
13	1.78	1.78	Earthen Levee	Encroachments	LS	СО	Buildings	38.970347 ° -121.502027 ° -1	38.970347 ° 21.502027 °	11
14	1.79	1.81	Earthen Levee	Encroachments	LS	PO	Landscaping	38.970347 ° -121.502177 ° -1	00.0.002.	12

Location LS : Land Side WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yankee Slough	Left	3.66	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	1					
Start Levee Mile	0.04					
End Levee Mile	3.63					
Location	Water Side					
Category	Earthen Levee					
Item	Vegetation					
This photo shows the waterside vegetation at levee mile 0.93						

cathom\_f\_20111201\_009.jpg

Levee Mile Report Line	2
Start Levee Mile	0.04
End Levee Mile	3.63
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo shows the landside vegetation at levee mile 0.93.

cathom\_f\_20111201\_010.jpg

Levee Mile Report Line	11
Start Levee Mile	1.28
End Levee Mile	1.29
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	







*	ocation	

USACE2011\_YAS\_1-7\_L\_1.jpg

LS : Land Side

WS : Water Side CR : Crown

\*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yankee Slough	Left	3.66	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	11
Start Levee Mile	1.28
End Levee Mile	1.29
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	
USACE2011_YAS_1-7_L_2.jpg	



### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

# **Reclamation District No. 1001 Nicolaus**

	Water	way		Bank	Unit Miles
	Unit No. 03 E	Bear River		Left	12.60
	Spring (March - May)	Summer (June - August)	(September - November)		Winter ber - February)
Unit Maintenance Rating (Fall Only)			M		
Date of Inspection	4/12/2011 - 4/13/2011		11/18/2011 - 11/18/2011		
DWR Inspector	Clay Thomas		Clay Thomas		
Accompanied By	Diane Fales		Diane Fales		
Check one:	vinter (or summer) inspection p	period my staff or I hav	e inspected the levee and asso	ociated fl	ood
project components conditions other that	identified in the attached Leve n the results of our normal mai ed in the enclosed report.	ee Inspection Report by	Mile. We have found no chang	ges in flo	
project components maintenance and th following changes in	vinter (or summer) inspection p identified in the attached Leve le corrections we have made to n flood project conditions. ction below or on additional she	ee Inspection Report by maintenance deficiend	Mile. In addition to the results cies identified in the report, we	of our no have fou	ormal und the
	n (Land Side, Water Side, or C				
Comments					
information must also be	3	eet should be signed ar	nd dated by the LMA Represen ch 31 (Winter Inspection). Plea aspection Reports e, Suite 200	tative an	d returned to
X Signature of LMA Repres	sentative		Date		

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

LMR No.	Levee	Mile End	Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude Start End	Issue No. Photo
1			Earthen Levee	Vegetation	LS	Α	Remove the wild growth other than native grasses from the levee slopes.	39.006597 ° 38.961038 ° -121.375184 ° -121.546628 °	1 Y
2	0.01	10.68	Earthen Levee	Vegetation	WS	Α	Remove the wild growth other than native grasses from the levee slopes.	39.006597 ° 38.961037 ° -121.375184 ° -121.546628 °	2 Y
3	1.06	1.06	Earthen Levee	Slope Stability	WS	М	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	39.006188 ° 39.006188 ° -121.394420 °	5
4	1.21	1.77	Earthen Levee	Encroachments	WS	РО	Poles	39.005316 ° 38.999814 ° -121.397026 ° -121.404346 °	3
5	1.47	1.47	Earthen Levee	Slope Stability	CR	М	Repair slope instability.	39.002848 ° 39.002848 ° -121.400285 ° -121.400285 °	4
6	1.87	1.87	Earthen Levee	Slope Stability	LS	M	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	38.998680 ° 38.998680 ° -121.405456 ° -121.405456 °	6
7	3.54	3.54	Earthen Levee	Vegetation	LS	М	Elderberries are blocking visibility and flood fight capability.	38.991745 ° 38.991745 ° -121.434398 ° -121.434398 °	906
8	3.80	3.96	Earthen Levee	Encroachments	LS	U	Debris	38.991225 ° 38.991194 ° -121.439192 ° -121.442173 °	8 Y
9	4.05	4.05	Earthen Levee	Encroachments	LS	M	Debris	38.991299 ° 38.991299 ° -121.443830 °	7
10	4.12	4.20	Earthen Levee	Encroachments	LS	РО	Landscaping	38.991442 ° 38.991646 ° -121.445035 ° -121.446522 °	13
11	4.14	4.14	Earthen Levee	Encroachments	LS	М	Material	38.991479 ° 38.991479 ° -121.445398 ° -121.445398 °	9
12	4.29	4.29	Earthen Levee	Encroachments	LS	М	Debris	38.991981 ° 38.991981 ° -121.447995 °	17
13	4.50	4.54	Earthen Levee	Encroachments	LS	U	Prunings	38.991862 ° 38.991803 ° -121.451922 ° -121.452670 °	16 Y
14	4.71	4.71	Earthen Levee	Encroachments	LS	М	Prunings	38.991413 ° 38.991413 ° -121.455866 °	12
15	4.85	4.85	Earthen Levee	Vegetation	LS	М	Elderberries are blocking visibility and flood fight capability.	38.990773 ° 38.990773 ° -121.458203 ° -121.458203 °	910
16	4.99	4.99	Earthen Levee	Encroachments	LS	М	Prunings	38.990000 ° 38.990000 ° -121.460597 ° -121.460597 °	14
17	5.25	5.25	Earthen Levee	Encroachments	LS	М	Prunings	38.988676 ° 38.988676 ° -121.465012 ° -121.465012 °	15
18	5.52	5.52	Earthen Levee	Encroachments	LS	М	Firewood	38.987308 ° 38.987308 ° -121.469648 °	911
19	7.15	7.15	Earthen Levee	Encroachments	LS	М	Prunings	38.982754 ° 38.982754 ° -121.499213 ° -121.499213 °	

\* Location

\*\* Rating

LS : Land Side WS : Water Side CR : Crown M: Minimally Acceptable
U: Unacceptable
VO: Partially Obstructing
CO: Completely Obstructing
W: Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

								11/10/2011	THOIT	
LMR I	Levee	e Mile	Category	Item	Location	Rating	Action/Comment	GPS Latitud	e/Longitude	No.
No.	Start	End	3.3		ion	ō		Start	End	Photo
20	7.16	7.29	Supplemental	USACE Erosion Survey	WS	M	Inspector Comments: 2008 - Sandy/silty banks with rotational slab failures creating near vertical bank with populs due to tree failures. Narrow berm. 2011: No observed change. [2011 Site ID: BER_5-7_L]	38.982737 ° -121.501144 ° -	38.982572 ° -121.502797 °	
21	10.01	10.01	Earthen Levee	Encroachments	CR	С	Equipment Inspector Comments: Levee blocked for new bridge construction.	38.969410 ° -121.542127 °	38.969410 ° -121.542127 °	
22	10.37	10.41	Supplemental	USACE Erosion Survey	WS	M	Inspector Comments: 2011: A large section of bank has slumped off, RD has flagging up, appears to be watching. [2011 Site ID: BER_2-5_L]	38.964583 ° -121.544967 °	38.964010 ° -121.545228 °	
23	11.05	11.21	Supplemental	USACE Erosion Survey	WS	М	Inspector Comments: 2011: Large slumped sections of bank. [2011 Site ID: BER_1-9_L]	38.955070 ° -121.549528 °	38.954227 ° -121.550592 °	
24	11.29	11.32	Earthen Levee	Vegetation	LS	М	Elderberries are blocking visibility and flood fight capability	7. 38.953367 ° -121.551428 °	38.953025 ° -121.551808 °	
25	12.07	12.07	Supplemental	USACE Erosion Survey	WS	M	Inspector Comments: 2006 - Multiple rotational failures in the berm. Erosion is into the levee toe and lower slope. Tension cracks extensive at top of bank. Cohesive toe creates a bench on which failures occur. 2007 - Still steep bank with some berm with pistol-butted reeds. 2011: No observed change. [2011 Site ID: BER_0-8_L]	38.946477° -121.564094°	38.947297 ° -121.563565 °	
26	12.24	12.24	Earthen Levee	Vegetation	LS	M	Elderberries are blocking visibility and flood fight capability	7. 38.946248 ° -121.564220 °	38.946248 ° -121.564220 °	

\* Location LS: Land Side WS: Water Side CR: Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	1
Start Levee Mile	0.01
End Levee Mile	10.68
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo shows the landside vegetation at levee mile 0.14.

cathom\_f\_20111201\_005.jpg

Levee Mile Report Line	2
Start Levee Mile	0.01
End Levee Mile	10.68
Location	Water Side
Category	Earthen Levee
Item	Vegetation

This photo shows the waterside vegetation at levee mile 0.14.

cathom\_f\_20111201\_006.jpg

Levee Mile Report Line	8
Start Levee Mile	3.80
End Levee Mile	3.96
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Levee mile 3.80, this photo is looking at the debris on the landside slope and toe.

cathom\_f\_20110929\_633.jpg







* Location	
------------	--

LS : Land Side

WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	13	
Start Levee Mile	4.50	
End Levee Mile	4.54	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Levee mile 4.54, this photo is looking at the prunings on the landside slope and toe.		

cathom\_f\_20110929\_635.jpg

Levee Mile Report Line	20
Start Levee Mile	7.16
End Levee Mile	7.29
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2011 Photo #1

USACE2011\_BER\_5-7\_L\_1.jpg

USACE2011_BER_5-7_L_1.jpg	
Levee Mile Report Line	20
Start Levee Mile	7.16
End Levee Mile	7.29
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	







*	ocation	

USACE2011\_BER\_5-7\_L\_2.jpg

LS : Land Side WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	22
Start Levee Mile	10.37
End Levee Mile	10.41
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	
USACE2011_BER_2-5_L_1.jpg	

Levee Mile Report Line	22
Start Levee Mile	10.37
End Levee Mile	10.41
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2011 Photo #2

USACE2011\_BER\_2-5\_L\_2.jpg

Levee Mile Report Line	23
Start Levee Mile	11.05
End Levee Mile	11.21
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	







* Location	
LS : Land Side WS : Water Side CR : Crown	

USACE2011\_BER\_1-9\_L\_1.jpg

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO: Partially Obstructing
CO: Completely Obstructing
W: Watch/Monitor

<sup>\*\*</sup> Rating

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	23
Start Levee Mile	11.05
End Levee Mile	11.21
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	
USACE2011_BER_1-9_L_2.jpg	
	1

Levee Mile Report Line	23
Start Levee Mile	11.05
End Levee Mile	11.21
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
LICACE 2011 Dhote #2	

USACE 2011 Photo #3

USACE2011\_BER\_1-9\_L\_3.jpg

Levee Mile Report Line	25
Start Levee Mile	12.07
End Levee Mile	12.07
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	

USACE2011\_BER\_0-8\_L\_1.jpg







* Location
LS : Land Side
WS : Water Side
CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.60	11/18/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	25
Start Levee Mile	12.07
End Levee Mile	12.07
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	
USACE2011_BER_0-8_L_2.jpg	



### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

# **Reclamation District No. 1001 Nicolaus**

	Bank	Unit Miles					
	Left	13.36					
	Spring Summer (September - November) (March - May) (June - August) Fall (						
Unit Maintenance Rating (Fall Only)			U				
Date of Inspection	4/13/2011 - 4/14/2011		11/17/2011 - 11/18/2011				
DWR Inspector	Clay Thomas		Clay Thomas				
Accompanied By	Diane Fales		Diane Fales				
Check one:							
project components conditions other that	vinter (or summer) inspection p identified in the attached Leve in the results of our normal mai ed in the enclosed report.	e Inspection Report by	Mile. We have found no change	ges in flo	ood ood project		
project components maintenance and th	vinter (or summer) inspection p i identified in the attached Leve he corrections we have made to n flood project conditions.	e Inspection Report by	Mile. In addition to the results	of our no	ormal		
	ction below or on additional sho n (Land Side, Water Side, or C						
Comments							
One of the boxes above is to be checked by the Local Maintaining Agency (LMA). If the second box is checked, additional information must also be submitted. This Unit Cover Sheet should be signed and dated by the LMA Representative and returned to DWR with any additional sheets by September 30 (Summer Inspection) or March 31 (Winter Inspection). Please retain a copy for your records. Please mail all of this information to:  DWR Summer/Winter Inspection Reports 3310 El Camino Avenue, Suite 200 Sacramento, CA 95821-9000							

Date

Signature of LMA Representative

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

LMR	Levee	Mile	Cotogoni	ltom	Location	Action/Comment	GPS Latitude/Longitu	ude Issue
No.	Start	End	Category	Item	tion *	Action/Comment	Start End	Phot
1	0.03	1.72	Earthen Levee	Vegetation	WS M	Remove the wild growth other than native grasses from the levee slopes.	38.941220 ° 38.9171 -121.567513 ° -121.5699	
2	0.03	2.00	Earthen Levee	Vegetation	LS M	Remove the wild growth other than native grasses from the levee slopes.	38.941220 ° 38.9138 -121.567521 ° -121.5726	
3	0.86	0.86	Earthen Levee	Encroachments	LS C	Prunings	38.929574 ° 38.9295 -121.568246 ° -121.5682	
4	1.24	1.24	Earthen Levee	Encroachments	LS C	Prunings	38.924063 ° 38.9240 -121.568628 ° -121.5686	
5	1.92	1.92	Earthen Levee	Encroachments	LS C	Prunings	38.915075 ° 38.9150 -121.572300 ° -121.5723	
6	3.22	3.22	Earthen Levee	Encroachments	LS PO	Landscaping	38.899732 ° 38.8997 -121.584110 ° -121.5841	
7	5.21	13.31	Earthen Levee	Vegetation	WS A	Remove the wild growth other than native grasses from the levee slopes.	38.882620 ° 38.7813 -121.611272 ° -121.6062	
8	5.21	13.31	Earthen Levee	Vegetation	LS A	Remove the wild growth other than native grasses from the levee slopes.	38.882619 ° 38.7813 -121.611271 ° -121.6062	
9	5.27	5.36	Supplemental	USACE Erosion Survey	WS M	Inspector Comments: 2000 - Some active toe erosion of a damaged old cobble site. 2005 - Small amount of additional erosion at the waterline. 2008 - Plans for repair currently in the design phase. 2010 - Old deteriorating cobble site. Fresh fallen tree. 2011: This site is currently under contract for repair. Repairs should be complete in 2012. [2011 Site ID: FHR_7-0_L]	38.879779 ° 38.8787 -121.612228 ° -121.6127	
10	5.78	5.86	Supplemental	USACE Erosion Survey	WS M	Inspector Comments: 2011: Erosion pockets from tree popouts. Sections of the lower bank have slumped off. [2011 Site ID: FHR_6-6_L]	38.874113 ° 38.8723 -121.615380 ° -121.6165	
11	6.38	6.45	Supplemental	USACE Erosion Survey	WS M	Inspector Comments: 2011: Tall slumping sections. Scour around trees has exposed most of the roots. [2011 Site ID: FHR_6-0_L]	38.865606 ° 38.8647 -121.620168 ° -121.6208	
12	6.48	6.48	Earthen Levee	Encroachments	LS PO	Landscaping	38.865653 ° 38.8656 -121.619742 ° -121.6197	
13	6.63	6.72	Supplemental	USACE Erosion Survey	WS M	Inspector Comments: 2011: Large slumped sections on the lower bank. [2011 Site ID: FHR_5-8_L]	38.863946 ° 38.8615 -121.621388 ° -121.6233	
14	6.64	6.64	Earthen Levee	Encroachments	LS P	Landscaping	38.863700 ° 38.8637 -121.621198 ° -121.6211	

Location
LS : Land Side
WS : Water Side
CR : Crown

\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

38.851909°

38.800920°

38.795455°

-121.633050 ° -121.631939 °

-121.629903 ° -121.628156 °

-121.629482 ° -121.630873 °

38.848004°

38.798165°

38.793394°

20

27

#### **Flood Control Project Maintenance** Levee Inspections

### Levee Inspection Report By Mile - Fall 2011

### **Reclamation District No. 1001 Nicolaus**

	Waterway			Bank	Unit Miles	Inspection Start/End	Inspec	ctor			
	Unit No. 04 Feather River				Left	13.36	11/17/2011 Clay 11/18/2011 Thomas				
ᄁᆫ	Levee Mile	Category	Item	Location	Rating	Action/Comment			GPS Latitude/Longitude		
No.	Start End	- Culogo, y		ion	DG	, totto i ii oo ii ii oo ii ii oo ii ii oo ii ii			Start	End	Photo
15	6.73 6.73	Earthen Levee	Animal Control	LS	М	No rodents visible, but rodent burrows v backfill and compact or grout burrows.	sible; nee		38.862607 ° 121.621891 ° -1	38.862607 ° 21.621891 °	

17 8.53 8.95 Supplemental USACE Erosion WS M Survey

7.56 7.73 Supplemental USACE Erosion WS M

Survey

some slumps and fallen trees, continued erosion. 2002 -Site lengthened upstream and downstream due to vertical bank along most of the reach. 2010 - Site extended upstream. 2011: Minimal new erosion. [2011 Site ID: FHR 5-0 L]

Inspector Comments: 2000 - Steep bank off berm with

Feather may benefit from a regional repair. 2011: Site

38.836966° 38.831498° Inspector Comments: 2006 - Sandy, silty bank with -121.634128 ° -121.636371 ° intermittent pockets of erosion. Rotational failure and tree pop outs are most of the problem. Some upper slope fluvial erosion. 2010 - Site extended upstream. The lower

combined with 3.6. Minimal new erosion. [2011 Site ID: FHR 3-8 L]

8.72 8.72 Earthen LS M Vegetation Elderberries are blocking visibility and flood fight capability. 38.835766° 38.835766° Levee -121.633966 ° -121.633966 ° 38.833088° 21 9.74 9.74 Earthen Encroachments WS PO Landscaping 38.833088° -121.635103 ° -121.635103 ° Levee

<sup>20</sup> 11.15 11.15 Earthen 38 802508 ° 38 802508 ° Vegetation LS M Elderberries are blocking visibility and flood fight capability. Levee -121.632862 ° -121.632862 °

21 11.19 11.44 Supplemental USACE Erosion WS M Survey

Inspector Comments: 2000 - Site is relatively stable except for some toe erosion at the upstream end, recommend monitoring the upstream end. 2004 - Some new block failures (10ft deep) at the toe of the upstream end. 2007 - Some minor new slumping at the waterline. 2011: No observed change. [2011 Site ID: FHR\_1-0\_L]

22 11.32 11.32 Earthen Elderberries are blocking visibility and flood fight capability. 38.800112° 38.800112° Vegetation LS M -121.632242 ° -121.632242 °

23 11.58 11.76 Supplemental USACE Erosion WS M Survey

Inspector Comments: 1997- Deposits over top of cobble on the upper slope. 2000 - Old cobble site in poor shape; some toe retreat, but little change; steep bank. 2010 -Site extended upstream due to new toe erosion. 2011: No

observed change. [2011 Site ID: FHR\_0-6\_L] 38.787355° Elderberries are blocking visibility and flood fight capability. 38.787355°

-121.621165 ° -121.621165 ° Levee 25 12.57 12.57 Earthen 38.786073° 38.786073° Encroachments LS CO Buildings -121.618522 ° -121.618522 °

Location LS: Land Side WS: Water Side CR: Crown

24 12.40 12.40 Earthen

Rating A : Acceptable U: Unacceptable

Vegetation

PO: Partially Obstructing M: Minimally Acceptable CO : Completely Obstructing W : Watch/Monitor

LS M

N : Not Inspected, see Inspector Comment C : Corrected

### Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

	Levee	e Mile	Category	Item	Loca:	Rati	Action/Comment	GPS Latitud	GPS Latitude/Longitude		
	Start	End	Category	item	ation	ing	Action/Comment	Start	End	Photo	
2	6 12.74	13.22	Earthen Levee	Vegetation	LS	M	Elderberries are blocking visibility and flood fight capability.	38.784513 ° -121.616045 °	38.781862 ° -121.607855 °	26	
2	<sup>7</sup> 12.76	13.21	Earthen Levee	Vegetation	WS	М	Elderberries are blocking visibility and flood fight capability.	38.784579 ° -121.615689 °	38.782150 ° -121.607918 °		

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	1			
Start Levee Mile	0.03			
End Levee Mile	1.72			
Location	Water Side			
Category	Earthen Levee			
Item	Vegetation			
This photo shows the waterside vegetation at leve				

mile 0.45.

cathom\_f\_20111201\_012.jpg

Levee Mile Report Line	2
Start Levee Mile	0.03
End Levee Mile	2.00
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo shows the landside vegetation at levee mile 0.45.

cathom\_f\_20111201\_011.jpg

Levee Mile Report Line	9
Start Levee Mile	5.27
End Levee Mile	5.36
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	

USACE2011\_FHR\_7-0\_L\_1.jpg







LS : Land Side WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO: Partially Obstructing
CO: Completely Obstructing
W: Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Laura Mila Danast Lina	40
JSACE2011_FHR_7-0_L_2.jpg	
USACE 2011 Photo #2	
Item	USACE Erosion Survey
Category	Supplemental
Location	Water Side
End Levee Mile	5.36
Start Levee Mile	5.27
Levee Mile Report Line	9

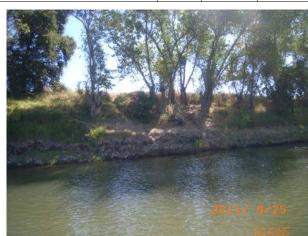
Levee Mile Report Line	10
Start Levee Mile	5.78
End Levee Mile	5.86
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
	•

USACE 2011 Photo #1

USACE2011\_FHR\_6-6\_L\_1.jpg

Levee Mile Report Line	10
Start Levee Mile	5.78
End Levee Mile	5.86
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	

USACE2011\_FHR\_6-6\_L\_2.jpg







* Location	

LS : Land Side
WS : Water Side
CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing
CO : Completely Obstructing
W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	10
Start Levee Mile	5.78
End Levee Mile	5.86
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #3	
USACE2011_FHR_6-6_L_3.jpg	
Levee Mile Report Line	11

Levee Mile Report Line	11
Start Levee Mile	6.38
End Levee Mile	6.45
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	•

USACE2011\_FHR\_6-0\_L\_1.jpg

Levee Mile Report Line	11
Start Levee Mile	6.38
End Levee Mile	6.45
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	

USACE2011\_FHR\_6-0\_L\_2.jpg







* Location	
LS : Land Side	

WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	11
Start Levee Mile	6.38
End Levee Mile	6.45
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #3	

USACE2011\_FHR\_6-0\_L\_3.jpg

Levee Mile Report Line	12
Start Levee Mile	6.48
End Levee Mile	6.48
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Landscaping on the land side shoulder and slope levee mile 6.48.

cathom\_f\_20110929\_639.jpg

Levee Mile Report Line	12
Start Levee Mile	6.48
End Levee Mile	6.48
Location	Land Side
Category	Earthen Levee
Item	Encroachments
Landscaping levee mile 6.48.	







LS : Land Side

cathom\_f\_20110929\_640.jpg

WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	13
Start Levee Mile	6.63
End Levee Mile	6.72
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	
USACE2011_FHR_5-8_L_1.jpg	

Levee Mile Report Line	13
Start Levee Mile	6.63
End Levee Mile	6.72
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
LICACE 2011 Dhoto #2	*

USACE 2011 Photo #2

Levee Mile Report Line	16
Start Levee Mile	7.56
End Levee Mile	7.73
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	

USACE2011\_FHR\_5-0\_L\_1.jpg







LS : Land Side
WS : Water Side
CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	16
Start Levee Mile	7.56
End Levee Mile	7.73
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	
USACE2011_FHR_5-0_L_2.jpg	
Loves Mile Pepert Line	16

Levee Mile Report Line	16
Start Levee Mile	7.56
End Levee Mile	7.73
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
LICACE 2011 Dhote #2	

USACE 2011 Photo #3

USACE2011_	FHR	_5-0_L	_3.jpg
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Levee Mile Report Line	16
Start Levee Mile	7.56
End Levee Mile	7.73
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #4	







USACE2011_FHR_5-0_L_4.jpg

LS : Land Side WS : Water Side CR : Crown

Location

\*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Laves Mila Danart Lina	47			
JSACE2011_FHR_5-0_L_5.jpg				
USACE 2011 Photo #5				
Item	USACE Erosion Survey			
Category	Supplemental			
Location	Water Side			
End Levee Mile	7.73			
Start Levee Mile	7.56			
Levee Mile Report Line	16			

Levee Mile Report Line	17
Start Levee Mile	8.53
End Levee Mile	8.95
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey

USACE 2011 Photo #1

USACE2011\_FHR\_3-8\_L\_1.jpg

Levee Mile Report Line	17
Start Levee Mile	8.53
End Levee Mile	8.95
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	

USACE2011\_FHR\_3-8\_L\_2.jpg







* Location
LS : Land Side
WS : Water Side
CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	17
Start Levee Mile	8.53
End Levee Mile	8.95
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #3	
USACE2011_FHR_3-8_L_3.jpg	

Levee Mile Report Line	21
Start Levee Mile	11.19
End Levee Mile	11.44
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
LICACE 2011 Dhote #1	

USACE 2011 Photo #1

USACE2011\_FHR\_1-0\_L\_1.jpg

Levee Mile Report Line	21
Start Levee Mile	11.19
End Levee Mile	11.44
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	

USACE2011\_FHR\_1-0\_L\_2.jpg







* Location	

LS : Land Side WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO: Partially Obstructing CO: Completely Obstructing W: Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

	Unit No. 04 Fea
Levee Mile Report Line	21
Start Levee Mile	11.19
End Levee Mile	11.44
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #3	
USACE2011_FHR_1-0_L_3.jpg	
Levee Mile Report Line	21
Start Levee Mile	
End Levee Mile	11.44
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #4	
USACE2011_FHR_1-0_L_4.jpg	
Levee Mile Report Line	21
Start Levee Mile	11.19
End Levee Mile	11.44
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #5	
USAGE 2011 P110(0 #5	





* Location	
LS : Land Side	

USACE2011\_FHR\_1-0\_L\_5.jpg

A : Acceptable
M : Minimally Acceptable
U : Unacceptable WS : Water Side CR : Crown

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

JSACE2011_FHR_0-6_L_1.jpg						
USACE 2011 Photo #1						
Item	USACE Erosion Survey					
Category	Supplemental					
Location	Water Side					
End Levee Mile	11.76					
Start Levee Mile	11.58					
Levee Mile Report Line	23					

Levee Mile Report Line	23
Start Levee Mile	11.58
End Levee Mile	11.76
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #2	

USACE2011\_FHR\_0-6\_L\_2.jpg

Levee Mile Report Line	23
Start Levee Mile	11.58
End Levee Mile	11.76
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #3	

USACE2011\_FHR\_0-6\_L\_3.jpg







* Location	

LS : Land Side WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO: Partially Obstructing CO: Completely Obstructing W: Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.36	11/17/2011 11/18/2011	Clay Thomas

Levee Mile Report Line	23				
Start Levee Mile	11.58				
End Levee Mile	11.76				
Location	Water Side				
Category	Supplemental				
Item	USACE Erosion Survey				
USACE 2011 Photo #4					
USACE2011_FHR_0-6_L_4.jpg					



### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

	Bank	Unit Miles					
	Right	5.44					
	Spring (March - May)	Summer (June - August)	(September - November) Fall		Winter ber - February)		
Unit Maintenance Rating (Fall Only)			А				
Date of Inspection	4/14/2011 - 4/14/2011		11/21/2011 - 11/21/2011				
DWR Inspector	Clay Thomas		Clay Thomas				
Accompanied By	Diane Fales		Diane Fales				
	vinter (or summer) inspection p						
conditions other tha	identified in the attached Leve in the results of our normal mai ed in the enclosed report.				od project		
project components maintenance and th following changes ir (In the comment see	During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. In addition to the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the report, we have found the following changes in flood project conditions.  (In the comment section below or on additional sheet(s), identify change of condition by: Start to End Levee Mile or GPS coordinates, location (Land Side, Water Side, or Crown), Item identification, and description of the current condition).						
Comments							
One of the boxes above is to be checked by the Local Maintaining Agency (LMA). If the second box is checked, additional information must also be submitted. This Unit Cover Sheet should be signed and dated by the LMA Representative and returned to DWR with any additional sheets by September 30 (Summer Inspection) or March 31 (Winter Inspection). Please retain a copy for your records. Please mail all of this information to:  DWR Summer/Winter Inspection Reports 3310 El Camino Avenue, Suite 200 Sacramento, CA 95821-9000							
x							
Signature of LMA Repres	sentative		Date				

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

LMR No.	Levee	Mile End	Category	Item	Rating ** Location	Action/Comment	GPS Latitude/Longitude	No. Photo
1	0.00		Earthen Levee	Encroachments	WS PO	Poles	38.781240 ° 38.790073 ° -121.605436 ° -121.598159 °	2 Y
2	0.14	5.39	Earthen Levee	Vegetation	WS A	Remove the wild growth other than native grasses from the levee slopes.	38.783123 ° 38.830646 ° -121.604663 ° -121.530510 °	4 Y
3	0.14	5.39	Earthen Levee	Vegetation	LS A	Remove the wild growth other than native grasses from the levee slopes.	38.783123 ° 38.830646 ° -121.604662 ° -121.530510 °	1 Y
4	0.19	0.86	Earthen Levee	Encroachments	LS PO	Poles	38.783758 ° 38.791058 ° -121.604189 ° -121.596562 °	5 Y
5	0.83	0.83	Earthen Levee	Encroachments	WS CO	Buildings	38.790830 ° 38.790830 ° -121.596973 ° -121.596973 °	3 Y
6	1.15	1.15	Earthen Levee	Encroachments	LS PO	Poles	38.793613 ° 38.793613 ° -121.592230 ° -121.592230 °	6 Y
7	1.52	1.59	Earthen Levee	Slope Stability	LS C	Repair slope instability.	38.796843 ° 38.797417 ° -121.586875 ° -121.585949 °	13
8	2.24	2.24	Supplemental	USACE Erosion Survey	WS M	Inspector Comments: 2006 - Noted old saturation slumping of upper levee slope that is into the levee core (near high water line). 2011: Erosion is into the top of the levee. This site is actually located at LM 2.5. [2011 Site ID: NCC_3-0_R]	38.803877° 38.804206° -121.575053° -121.574529°	15 Y
9	3.59	3.85	Earthen Levee	Encroachments	LS PO	Poles	38.814919 ° 38.817178 ° -121.556712 ° -121.552965 °	7 Y
10	3.69	3.69	Earthen Levee	Encroachments	WS W	Equipment	38.815737 ° 38.815737 ° -121.555338 ° -121.555338 °	8 Y
11	3.73	3.73	Earthen Levee	Encroachments	WS W	Equipment	38.816155 ° 38.816155 ° -121.554650 ° -121.554650 °	9
12	3.85	3.85	Earthen Levee	Encroachments	WS W	Equipment	38.817177 ° 38.817177 ° -121.552967 ° -121.552967 °	11
13	3.85	3.85	Earthen Levee	Encroachments	LS PO	Tank	38.817178 ° 38.817178 ° -121.552965 ° -121.552965 °	10 Y
14	4.44	4.44	Earthen Levee	Encroachments	CR W	Material	38.822198 ° 38.822198 ° -121.544053 ° -121.544053 °	12 Y

Location						
LS	: Land	Side				

WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	1	
Start Levee Mile	0.00	
End Levee Mile	0.75	
Location	Water Side	
Category	Earthen Levee	
Item	Encroachments	
Poles on the water side shoulder levee mile 0.00 - 0.75		

cathom\_f\_20110929\_641.jpg

Levee Mile Report Line	2
Start Levee Mile	0.14
End Levee Mile	5.39
Location	Water Side
Category	Earthen Levee
Item	Vegetation

This photo shows the waterside vegetation at levee mile 0.15.

cathom\_f\_20111201\_013.jpg

Levee Mile Report Line	3
Start Levee Mile	0.14
End Levee Mile	5.39
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo shows the landside vegetation at levee mile 0.18.

cathom\_f\_20111201\_014.jpg







LS : Land Side WS : Water Side CR : Crown \*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	4	
Start Levee Mile	0.19	
End Levee Mile	0.86	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Poles at the land side toe levee mile 0.19 - 0.86.		

cathom\_f\_20110929\_644.jpg

Levee Mile Report Line	5
Start Levee Mile	0.83
End Levee Mile	0.83
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Pump house on the water side levee mile 0.83.

cathom\_f\_20110929\_642.jpg

Levee Mile Report Line	5	
Start Levee Mile	0.83	
End Levee Mile	0.83	
Location	Water Side	
Category	Earthen Levee	
Item	Encroachments	
Pump house and Caretakers home levee mile		

0.83









\* Location

LS : Land Side WS : Water Side CR : Crown \* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	6
Start Levee Mile	1.15
End Levee Mile	1.15
Location	Land Side
Category	Earthen Levee
Item	Encroachments
Pole on land side should	ler levee mile 1.15.

cathom\_f\_20110929\_645.jpg

Levee Mile Report Line	6	
Start Levee Mile	1.15	
End Levee Mile	1.15	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Pole on land side shoulder.		

cathom\_f\_20110929\_646.jpg

Levee Mile Report Line	8
Start Levee Mile	2.24
End Levee Mile	2.24
Location	Water Side
Category	Supplemental
Item	USACE Erosion Survey
USACE 2011 Photo #1	







USACE2011\_NCC\_3-0\_R\_1.jpg

LS : Land Side WS : Water Side CR : Crown

Location

\*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	9
Start Levee Mile	3.59
End Levee Mile	3.85
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Poles on the land side shoulder levee mile 3.59 - 3.85.

cathom\_f\_20110929\_647.jpg

Levee Mile Report Line	10
Start Levee Mile	3.69
End Levee Mile	3.69
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Pump water side levee mile 3.69.

cathom\_f\_20110929\_648.jpg

Levee Mile Report Line	13
Start Levee Mile	3.85
End Levee Mile	3.85
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Storage tank on land side slope levee mile 3.85.









\* Location

LS : Land Side

WS : Water Side CR : Crown

\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.44	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	14			
Start Levee Mile	4.44			
End Levee Mile	4.44			
Location	Crown			
Category	Earthen Levee			
Item	Encroachments			
Levee stops at hwy 70 and starts again on the other side of hwy 70.				
cathom_f_20110929_650.jpg				



Location

### **Unit Cover Sheet**

### Fall 2011 Levee Inspection Results

	Bank	Unit Miles						
	Unit No. 06 East Side Canal							
	Spring (March - May)	Summer (June - August)	(September - November) Fall		Winter ber - February)			
Unit Maintenance Rating (Fall Only)			A					
Date of Inspection	4/14/2011 - 4/22/2011		11/21/2011 - 11/21/2011					
DWR Inspector	Clay Thomas		Clay Thomas					
Accompanied By	Diane Fales		Diane Fales					
project components conditions other that deficiencies identified.  During the current with project components maintenance and the following changes in	Check one:  During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. We have found no changes in flood project conditions other than the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the enclosed report.  During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. In addition to the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the report, we have found the following changes in flood project conditions.  (In the comment section below or on additional sheet(s), identify change of condition by: Start to End Levee Mile or GPS							
Comments	Tr (Land Glac, Water Glac, Gr	nown), nom locitimodik	on, and description of the curre	on contain				
One of the boxes above is information must also be	3	eet should be signed ar	nd dated by the LMA Represer ch 31 (Winter Inspection). Plea aspection Reports e, Suite 200	itative an	d returned to			
X								
Signature of LMA Repres	sentative		Date					

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 06 East Side Canal	Right	4.80	11/21/2011 11/21/2011	Clay Thomas

LMR	Levee	Mile	Catagoni	Item	Location *	Rating	Action/Comment	GPS Latitud	de/Longitude	Issue No.
No.	Start	End	Category	item	tion	ing	Action/Comment Start		End	Photo
1	0.02	4.71	Earthen Levee	Vegetation	WS	Α	Remove the wild growth other than native grasses from the levee slopes.	38.831287 ° -121.529439 °	38.896263 ° -121.521071 °	2 Y
2	0.02	4.71	Earthen Levee	Vegetation	LS	Α	Remove the wild growth other than native grasses from the levee slopes.	38.831287 ° -121.529438 °	38.896263 ° -121.521071 °	1 Y
3	1.06	1.06	Earthen Levee	Encroachments	LS	РО	Landscaping	38.845643 ° -121.524363 °	38.845643 ° -121.524363 °	5 Y
4	1.37	1.37	Earthen Levee	Encroachments	LS	РО	Equipment	38.850042 ° -121.524359 °	38.850042 ° -121.524359 °	6 Y
5	1.45	1.45	Earthen Levee	Encroachments	LS	РО	Equipment	38.851272 ° -121.524357 °	38.851272 ° -121.524357 °	3 Y
6	1.48	1.48	Earthen Levee	Vegetation	LS	М	Remove the wild growth other than native grasses from the levee slopes.	38.851724 ° -121.524518 °	38.851724 ° -121.524518 °	9
7	2.06	2.06	Earthen Levee	Slope Stability	CR	M	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	38.860002 ° -121.524873 °	38.860002 ° -121.524873 °	8
8	4.05	4.05	Earthen Levee	Slope Stability	CR	М	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	38.888821 ° -121.524733 °	38.888821 ° -121.524733 °	7
9	4.35	4.35	Earthen Levee	Slope Stability	CR	М	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	38.893058 ° -121.524705 °	38.893058 ° -121.524705 °	4
10	4.51	4.51	Earthen Levee	Vegetation	LS	М	Remove the wild growth other than native grasses from the levee slopes.	38.895287 ° -121.524473 °	38.895287 ° -121.524473 °	10

Location LS : Land Side WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

### Levee Inspection Report By Mile - Fall 2011

# **Reclamation District No. 1001 Nicolaus**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 06 East Side Canal	Right	4.80	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	1		
Start Levee Mile	0.02		
End Levee Mile	4.71		
Location	Water Side		
Category	Earthen Levee		
Item	Vegetation		
This photo shows the waterside vegetation at levee mile 0.08.			

cathom\_f\_20111201\_015.jpg

Levee Mile Report Line	2
Start Levee Mile	0.02
End Levee Mile	4.71
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo shows the landside vegetation at levee mile 0.08.

cathom\_f\_20111201\_016.jpg

Levee Mile Report Line	3	
Start Levee Mile	1.06	
End Levee Mile	1.06	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Landscaping on the land side slope L/M 1.06.		

cathom\_f\_20110929\_653.jpg







Location

LS : Land Side

WS : Water Side CR : Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

PO : Partially Obstructing CO : Completely Obstructing W : Watch/Monitor

N : Not Inspected, see Inspector Comment

# Levee Inspection Report By Mile - Fall 2011

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 06 East Side Canal	Right	4.80	11/21/2011 11/21/2011	Clay Thomas

Levee Mile Report Line	4	
Start Levee Mile	1.37	
End Levee Mile	1.37	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Equipment at the land side toe L/M 1.37.		
cathom f 20110929 654 ing		

cathon_i_zo i roszs_os4.jpg		
Levee Mile Report Line	5	
Start Levee Mile	1.45	
End Levee Mile	1.45	
Location	Land Side	
Category	Earthen Levee	
Item	Encroachments	
Equipment at the land side toe L/M 1.45.		
cathom_f_20110929_652.jpg		



